THE OHIO STATE ENGINEER

APRIL, 1940

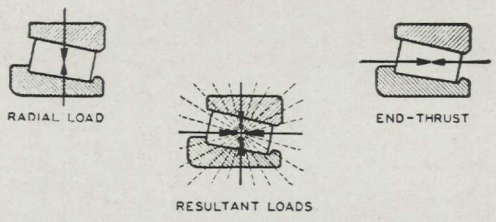
VOL. XXIII No. 5

FIFTEEN CENTS

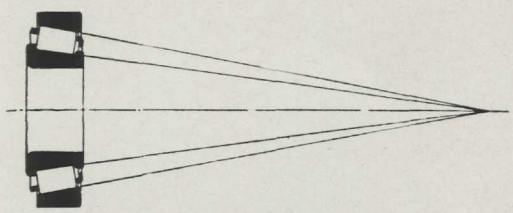
MEMBER OF THE ENGINEERING COLLEGE MAGAZINES ASSOCIATED

HERE'S WHY THE TIMKEN BEARING SUCCESSFULLY MEETS EVERY MODERN BEARING REQUIREMENT . . .

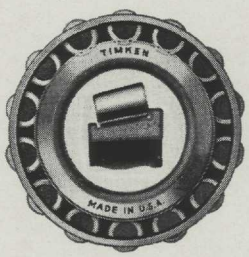
The fundamental characteristics of the TIMKEN Bearing, arising from inherent features of its design, make this bearing eminently suitable for every bearing application in every kind of mechanical equipment. In your future years as an engineer, bearing selection will be one of your many important responsibilities. The more you learn about bearings now, the easier your task will be.



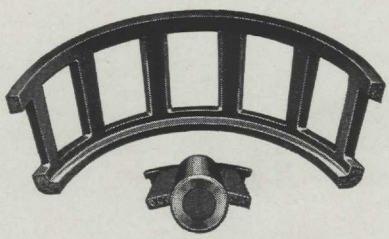
The most important feature of the TIMKEN Bearing is its basic tapered principle, introduced by Timken in 1898 and never superseded. This enables the bearing to carry all types of loads—radial, thrust or both together in any combination —without auxiliary supports of any kind, (such as thrust plates or thrust washers).



To assure true rolling motion and thus provide maximum anti-friction efficiency in operation, the bearing is so designed that lines projected along the tapered surfaces of the rolls and races meet at a common apex on the axis of the bearing.



Rolls are kept in exact alignment with respect to the races by two area contact of the large roll ends with the undercut rib of the cone (inner race).



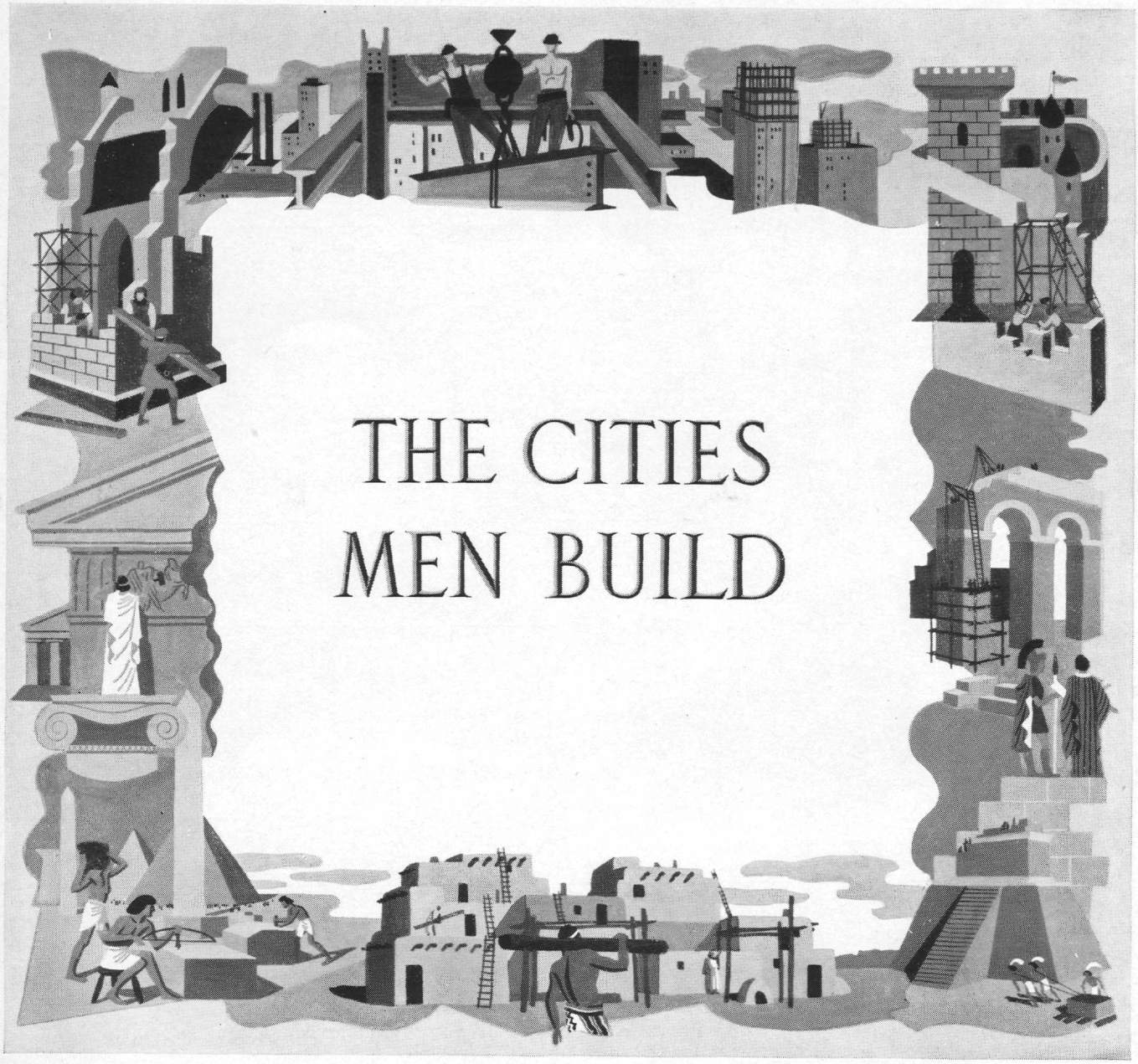
A scientifically-designed and accurately-perforated cage keeps the rolls properly spaced around the cone so that each roll carries its proper proportion of the load.

For more than 41 years a constant process of engineering refinement has been going on, resulting in the perfected TIMKEN Bearing of today—a product of one of the world's largest and most famous engineering-manufacturing organizations.

THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

Manufacturers of TIMKEN Tapered Roller Bearings for automobiles, motor trucks, railroad cars and locomotives and all kinds of industrial machinery; TIMKEN Alloy Steels and Carbon and Alloy Seamless Tubing; and TIMKEN Rock Bits.

TIMKEN
TAPERED ROLLER BEARINGS



THE CITIES MEN BUILD

FROM THE EARLIEST times man has endeavored to create communities for reasons of safety, comfort and fellowship.

But as he built his towns and cities he faced new difficulties. None of these had greater bearing on his well-being than the removal and disposal of waste. To this day the sanitation of cities has remained one of the most pressing problems of urban life.

Yet here again modern chemistry is giving material aid to sanitary engineers who are meeting this municipal problem in a truly remarkable manner.

Raw sewage is about 97 per cent water and 3 per cent organic matter. The basic task is to extract the organic matter from the water. The solids must be precipitated in settling tanks, then coagulated—causing the organic particles to cling together. These primary processes are necessary so that the coagulated sewage, or sludge, can be dried and disposed of either as fertilizer or by burning.

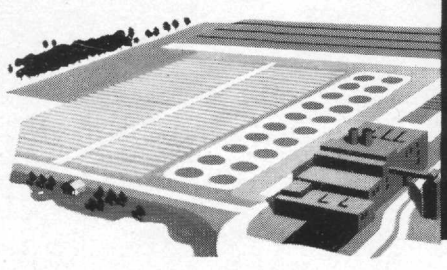
For these processes modern practice calls for the use of Dow Ferric Chloride and many sewage disposal plants are designed accordingly, including the Southwest Plant recently completed in Chicago, the largest activated sludge plant in the world, with a capacity of 400,000,000 gallons a day.

Dow Ferric Chloride has proved to be a remarkably efficient conditioning agent. Engineers favor it also because it permits a much simpler design for disposal plants and assures a minimum of chemical and operating costs as well.

In this contribution to sanitary engineering we find another practical example of the far-reaching value of Dow's chemical developments.

THE DOW CHEMICAL COMPANY
Midland, Michigan

Branch Sales Offices: 30 Rockefeller Plaza, New York City—Second and Madison Streets, St. Louis—Field Building, Chicago—9 Main Street, San Francisco—4151 Bandini Blvd., Los Angeles



DOW

CHEMICALS INDISPENSABLE TO INDUSTRY

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Don't Forget Engineers' Day May 10th, 11th

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HELMUTH W. ENGELMAN, Editor GERHARDT F. RECHTIN, Bus. Mgr.

Published in the months of November, December, February, March, April, May, and June by the students in the College of Engineering, The Ohio State University, Columbus, Ohio. Subscription price, 97 cents (tax 3 cents) per year for seven copies; Single copies, 15 cents each. Make checks and money orders payable to THE OHIO STATE ENGINEER.

Entered as second-class matter May 15, 1912, at the post office at Columbus, Ohio, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized December 8, 1922.